

Exhibit 55

<p>Page 1</p> <p>1 NO. 21-CI-06290 JEFFERSON CIRCUIT COURT DIVISION FOUR (4) JUDGE JULIE KAE LIN</p> <p>2</p> <p>3</p> <p>4</p> <p>5 MATTHEW STRECK, Individually, et al. PLAINTIFFS</p> <p>6</p> <p>7</p> <p>8 V. VIDEO DEPOSITION FOR THE DEFENDANTS</p> <p>9</p> <p>10</p> <p>11 JOHNSON AND JOHNSON, et al. DEFENDANTS</p> <p>12</p> <p>13 * * *</p> <p>14</p> <p>15 DEPONENT: WILLIAM E. LONGO, Ph.D.</p> <p>16 DATE: MAY 16, 2023</p> <p>17</p> <p>18 * * *</p> <p>19</p> <p>20</p> <p>21 ELLEN L. COULTER REGISTERED PROFESSIONAL REPORTER COULTER REPORTING, LLC 101 East Kentucky Street Suite 200 Louisville, Kentucky 40203 (502) 582-1627 FAX: (502) 587-6299 E-MAIL: Ecoulter@coulterreporting.com</p> <p>25</p>	<p>Page 3</p> <p>1 EXHIBITS (continued):</p> <p>2 Deposition Exhibit No. 9 126 (RJ Lee J&J Historical Baby Powder Analysis, Dr. Sanchez)</p> <p>3</p> <p>4 Deposition Exhibit No. 10 139 (March 9, 2023 letter to Joseph Satterley and Ian Rivamonte, from Julia E. Romano)</p> <p>5</p> <p>6 Deposition Exhibit No. 11 140 (March 15, 2023 email to Julia Romano and others, from Joseph D. Satterley)</p> <p>7</p> <p>8 Deposition Exhibit No. 12 146 (March 21, 2023 email to Julia Romano and others, from Joseph D. Satterley)</p> <p>9</p> <p>10 Deposition Exhibit No. 13 147 (March 23rd, 2023 status conference, Valadez v. Johnson & Johnson)</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>
<p>Page 2</p> <p>1 INDEX</p> <p>2</p> <p>3 Examination by Mr. Williams 7</p> <p>4 Examination by Ms. Browning 77</p> <p>5 Examination by Mr. Vives 78</p> <p>6 Examination by Mr. Smith 150</p> <p>7 Reporter's Certificate 152</p> <p>8</p> <p>9 EXHIBITS</p> <p>10</p> <p>11 Deposition Exhibit No. 1 12 (January 19, 2023 letter to William E. Longo, Ph.D., from Joseph D. Satterley)</p> <p>12</p> <p>13 Deposition Exhibit No. 2 20 (Plaintiffs' Expert Witness Disclosure)</p> <p>14</p> <p>15 Deposition Exhibit No. 3 30 (Declaration of William Longo, Ph.D., Gina Anderson v. Avon Products, Inc.)</p> <p>16</p> <p>17 Deposition Exhibit No. 4 44 (Exhibit R, MAS Chart of Gold Bond Testing, June 23, 2022)</p> <p>18</p> <p>19 Deposition Exhibit No. 5 68 (Matthew Streck depo notes)</p> <p>20</p> <p>21 Deposition Exhibit No. 6 84 (Matthew Streck deposition, Volume II, dated March 9, 2022)</p> <p>22</p> <p>23 Deposition Exhibit No. 7 102 (Dr. Longo's report in the Valadez case, dated February 28, 2023)</p> <p>24</p> <p>25 Deposition Exhibit No. 8 110 (EPA Test Method, Method for the Determination of Asbestos in Bulk Building Materials, July 1993)</p>	<p>Page 4</p> <p>1 APPEARANCES</p> <p>2</p> <p>3 FOR THE PLAINTIFFS:</p> <p>4 PAUL J. KELLEY - Via Video Satterley & Kelley, PLLC 8700 Westport Road, Suite 202 Louisville, Kentucky 40242 pkelley@satterleylaw.com</p> <p>5</p> <p>6</p> <p>7 FOR THE DEFENDANT, CHATTEM, INC.:</p> <p>8 JAMES T. WILLIAMS - Via Video Miller & Martin Volunteer Building, Suite 1200 832 Georgia Avenue Chattanooga, Tennessee 37402 james.williams@millermartin.com</p> <p>9</p> <p>10</p> <p>11</p> <p>12 FOR THE DEFENDANT, JOHNSON & JOHNSON:</p> <p>13 MICHAEL VIVES - Via Video King & Spalding, LLP 1185 Avenue of the Americas, 34th Floor New York, New York 10036 mvives@kslaw.com</p> <p>14</p> <p>15</p> <p>16</p> <p>17 FOR THE DEFENDANT, THE KROGER COMPANY:</p> <p>18 TRAVIS R. SMITH - Via Video Dinsmore & Shohl, LLP 211 N. Pennsylvania Street One Indiana Square, Suite 1800 Indianapolis, Indiana 46204 travis.smith@dinsmore.com</p> <p>19</p> <p>20</p> <p>21</p> <p>22 FOR THE DEFENDANT, BARRETTS MINERALS, INC.:</p> <p>23 CAROL DAN BROWNING - Via Video Stites & Harbison, PLLC 400 West Market Street, Suite 1800 Louisville, Kentucky 40202 cbrowning@stites.com</p> <p>24</p> <p>25</p>

<p>1 MODERATOR: Page 5</p> <p>2 LAUREN GRAHAM</p> <p>3 Coulter Reporting</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	<p>1 EXAMINATION Page 7</p> <p>2</p> <p>3 BY MR. WILLIAMS:</p> <p>4 Q. It's still morning, so good morning,</p> <p>5 Dr. Longo. James Williams for Chattem. Is there</p> <p>6 any --</p> <p>7 A. Good morning, Mr. Williams. How are</p> <p>8 you doing?</p> <p>9 Q. I'm doing well and I hope you are.</p> <p>10 A. I'm doing fine.</p> <p>11 Q. Good. Is there any reason why your</p> <p>12 deposition cannot go forward today?</p> <p>13 A. Only if they're real hard questions.</p> <p>14 No, just kidding. No, sir, there's not any reason.</p> <p>15 Q. Is there any reason why you could not</p> <p>16 give truthful testimony today?</p> <p>17 A. There's no reason.</p> <p>18 Q. Okay. We've obviously had -- visited</p> <p>19 several times for depositions, and so I don't want to</p> <p>20 be repetitive here. But since it's been a while, I</p> <p>21 want to ask some questions to make sure -- or some</p> <p>22 previous questions just to make sure things are still</p> <p>23 true.</p> <p>24 So, Dr. Longo, is it still true that</p> <p>25 all of your work from 2016 to the present concerning</p>
<p>1 The video-recorded Zoom Page 6</p> <p>2 videoconference deposition of WILLIAM E. LONGO,</p> <p>3 Ph.D., taken on Tuesday, the 16th day of May, 2023,</p> <p>4 at approximately 11:41 a.m.; said deposition being</p> <p>5 taken pursuant to Notice for use in accordance with</p> <p>6 the Kentucky Rules of Civil Procedure.</p> <p>7</p> <p>8 * * *</p> <p>9</p> <p>10 THE MODERATOR: Today's date is</p> <p>11 May 16th, 2023. The time is 11:41 a.m.</p> <p>12 We are on the record for the</p> <p>13 video-recorded deposition of William Longo, Ph.D.,</p> <p>14 taken in the matter of Matthew Streck, et al., versus</p> <p>15 Johnson & Johnson, et al., in the Jefferson Circuit</p> <p>16 Court, Case No. 21-CI-06290.</p> <p>17 This deposition is being held via Zoom</p> <p>18 videoconference. The court reporter is Ellen</p> <p>19 Coulter. The Zoom moderator and videographer is</p> <p>20 Lauren Graham. If the reporter will now swear in the</p> <p>21 witness.</p> <p>22</p> <p>23 WILLIAM E. LONGO, Ph.D., after first</p> <p>24 being duly sworn, was examined as follows:</p> <p>25</p>	<p>1 cosmetic or pharmaceutical talc products has been Page 8</p> <p>2 solely in connection with litigation on behalf of</p> <p>3 talc plaintiffs, correct?</p> <p>4 A. You know, I need to modify that</p> <p>5 answer. I had forgotten -- and I'm just getting</p> <p>6 ready to do the report -- I've done some analysis on</p> <p>7 behalf of a -- not even a client, but I was</p> <p>8 interested in getting -- nothing to do with Gold</p> <p>9 Bond. I was interested in getting some Johnson Baby</p> <p>10 Powder containers from India, and an associate -- not</p> <p>11 associate, but somebody that I'm familiar with was</p> <p>12 able to do that. I'm not getting paid for that. I</p> <p>13 just wanted to see what was in the mine. It was</p> <p>14 three samples, and I've got some additional dose</p> <p>15 samples from -- that's from the Mumbai mine.</p> <p>16 And then there's a second mine, and I</p> <p>17 haven't got to those yet. And those are the ones I</p> <p>18 got.</p> <p>19 So other than that, the rest of that</p> <p>20 is correct.</p> <p>21 Q. And the work that you just described,</p> <p>22 that is more out of interest or research than having</p> <p>23 to do with any type of cosmetic or pharmaceutical</p> <p>24 talc litigation?</p> <p>25 A. That is correct.</p>

<p style="text-align: right;">Page 45</p> <p>1 before?</p> <p>2 A. Yes.</p> <p>3 Q. And this -- this chart which we've</p> <p>4 marked as Exhibit 4 is one that your lab has prepared</p> <p>5 that sort of summarizes the testing that your lab's</p> <p>6 done for Gold Bond as well as, I believe, some</p> <p>7 Montana talc samples, correct?</p> <p>8 A. Correct.</p> <p>9 Q. Now, the one we've marked as</p> <p>10 Exhibit 4, it's dated June 23rd, 2022. It was made</p> <p>11 an exhibit to the Anderson declaration that we talked</p> <p>12 about a few minutes ago. And it looks like, if I</p> <p>13 scroll down, there are 21 separate bottles of Gold</p> <p>14 Bond that had been tested, is that right?</p> <p>15 A. That is right for that chart. There</p> <p>16 is a new chart that was issued on February 26th,</p> <p>17 2023, but it only changes by one container. We're</p> <p>18 now up to 22 containers. A travel Gold Bond from</p> <p>19 Simon Greenstone.</p> <p>20 Q. And what matter was that from?</p> <p>21 A. Client was Louanne Dunn, D-U-N-N.</p> <p>22 Q. Were the findings from the report in</p> <p>23 the Dunn matter, were they similar to the findings</p> <p>24 with regard to the other 21 samples, meaning that</p> <p>25 there was only findings of chrysotile and no</p>	<p style="text-align: right;">Page 47</p> <p>1 chart, this Exhibit 4, that MAS, or your lab, did not</p> <p>2 use the Colorado School of Mines sample prep</p> <p>3 technique for the PLM analysis for chrysotile?</p> <p>4 A. So 9 out of 22, and the other one</p> <p>5 would be 13, so, yes, more was done by -- only 9 out</p> <p>6 of 22 had CSM.</p> <p>7 Q. And the way you would tell by looking</p> <p>8 at this chart whether CSM was used, if it says N/A</p> <p>9 under the CSM-PLM on the right-hand side there, if it</p> <p>10 says N/A, that means nonapplicable and that you did</p> <p>11 not use that sample prep technique, correct?</p> <p>12 A. Correct.</p> <p>13 Q. And how long does it take, typically,</p> <p>14 to examine a Gold Bond container or any talc</p> <p>15 container for the presence of -- or examine it for</p> <p>16 the presence of asbestos?</p> <p>17 A. If it's a nondetect, it may take one</p> <p>18 to two hours. If it is a detect and -- because we're</p> <p>19 counting the structures, it can be a half a day to a</p> <p>20 whole day.</p> <p>21 Q. And let me ask a better question.</p> <p>22 Just putting TEM aside, I just want to focus on the</p> <p>23 PLM side, how long does the PLM analysis typically</p> <p>24 take?</p> <p>25 A. For cosmetic talcs, right?</p>
<p style="text-align: right;">Page 46</p> <p>1 amphibole?</p> <p>2 A. That is correct.</p> <p>3 Q. And does this chart, together with the</p> <p>4 additional testing that you just referenced,</p> <p>5 constitute the universe of Gold Bond testing that</p> <p>6 you'll be relying on in this case for purposes of</p> <p>7 testifying about, you know, the contents of Gold</p> <p>8 Bond?</p> <p>9 A. Yes.</p> <p>10 Q. Are you currently testing any</p> <p>11 additional Gold Bond samples, the reports of which</p> <p>12 are not complete?</p> <p>13 A. That, I don't know. I certainly</p> <p>14 haven't issued any new reports. Do we have any</p> <p>15 samples in the queue? I just don't know.</p> <p>16 Q. Are you doing any sort of TEM testing</p> <p>17 now for chrysotile in talc?</p> <p>18 A. No, not yet.</p> <p>19 Q. And for each of the 22 samples, the 21</p> <p>20 in the chart on Exhibit 4 and the additional sample</p> <p>21 that you just referenced, there was no TEM testing</p> <p>22 for purposes of detecting chrysotile, correct?</p> <p>23 A. That is correct.</p> <p>24 Q. And do you agree that for the majority</p> <p>25 of these Gold Bond samples that are identified on the</p>	<p style="text-align: right;">Page 48</p> <p>1 Q. Correct, yes. Thank you.</p> <p>2 A. Just for asbestos-added products from</p> <p>3 start to finish it's usually 15 to 20 minutes. For</p> <p>4 these types of samples, half a day, sometimes a whole</p> <p>5 day for one sample.</p> <p>6 Q. Now, if we're looking -- and I'm on</p> <p>7 the first page of the chart there in item No. 2,</p> <p>8 which is M7131 -- excuse me, M71381-001, do you see</p> <p>9 that?</p> <p>10 A. Yes.</p> <p>11 Q. Okay. And over on the far right it</p> <p>12 says 37 bundles. Is that -- that's the number of</p> <p>13 chrysotile bundles that -- that your lab detected?</p> <p>14 A. Correct.</p> <p>15 Q. Okay. But in any given report, if we</p> <p>16 were to go and look through each of the reports, the</p> <p>17 photomicrographs showing what MAS says is a particle</p> <p>18 that's chrysotile, that's only going to be just a</p> <p>19 handful of particles. Not all 37 bundles are</p> <p>20 captured, is that correct?</p> <p>21 A. That's correct. That's just the</p> <p>22 typically four or five structures, chrysotile</p> <p>23 structures that sort of represent what we're seeing.</p> <p>24 Q. Okay. And you -- you're not involved</p> <p>25 in the day-to-day PLM testing of the talc, right?</p>

<p>Page 49</p> <p>1 That's done by another individual at your lab?</p> <p>2 A. Correct. I don't -- I don't analyze</p> <p>3 these from start to finish. I just get called in if</p> <p>4 there's a question or -- on the refractive indices or</p> <p>5 structure, sort of the tiebreaker.</p> <p>6 Q. Okay. And so am I correct that for</p> <p>7 each of the 21 Gold Bond samples identified on this</p> <p>8 chart, as well as the additional sample that you</p> <p>9 referenced a moment ago for a total of 22 samples,</p> <p>10 those were all tested for purposes of the PLM</p> <p>11 analysis for chrysotile by Mr. Paul Hess, is that</p> <p>12 right?</p> <p>13 A. Yes, sir, I believe so.</p> <p>14 Q. Okay. And it's -- is it Mr. Hess --</p> <p>15 he's the one who's looking through the PLM microscope</p> <p>16 to make the determination of the particle's color and</p> <p>17 then also a determination to match it to a refractive</p> <p>18 index?</p> <p>19 A. Yes.</p> <p>20 Q. And he makes that determination in</p> <p>21 both the parallel orientation of the particle as well</p> <p>22 as the perpendicular orientation of the particle,</p> <p>23 correct?</p> <p>24 A. That is correct.</p> <p>25 Q. Is it Mr. Hess that also makes the</p>	<p>Page 51</p> <p>1 Q. And the refractive index computations</p> <p>2 that underpin your birefringence determinations,</p> <p>3 those are conducted by Mr. Hess, correct?</p> <p>4 A. If Mr. Hess is doing the analysis, he</p> <p>5 is the one taking the dispersion color, matching it</p> <p>6 to the wavelength and then using the appropriate</p> <p>7 chart. Right now we're just only going to be using</p> <p>8 1.560, and then he gets the refractive -- what the</p> <p>9 refractive indice is based on the wavelength.</p> <p>10 THE REPORTER: Based on the --</p> <p>11 A. I'm sorry, based on the wavelength.</p> <p>12 Q. And Mr. Hess is the one that completes</p> <p>13 and fills out the worksheets that would be part of</p> <p>14 your report?</p> <p>15 A. Yes.</p> <p>16 Q. And when I say "worksheet," I'm</p> <p>17 talking about the sheet that contains, you know, the</p> <p>18 refractive index data or the ranges of refractive</p> <p>19 index data, the morphology, and the birefringence</p> <p>20 information, correct?</p> <p>21 A. Yeah, the qualitative birefringence.</p> <p>22 He'll typically put that in there, and everything</p> <p>23 else, you know, is correct. That's what the data</p> <p>24 shows. It will give the range of the -- the gamma</p> <p>25 and alpha directions. And then each individual</p>
<p>Page 50</p> <p>1 birefringence computation?</p> <p>2 A. No, that would be me. Now, he'll --</p> <p>3 he will say in the -- he'll give his qualitative</p> <p>4 estimate of what the birefringence is. You know,</p> <p>5 using the Michel -- you know, they've been using the</p> <p>6 Michel-Levy charts for a while. But when I get the</p> <p>7 refractive indices or data in agreement with what</p> <p>8 they're using, then I do that calculation.</p> <p>9 Q. Okay. But in order to do the</p> <p>10 birefringence calculation -- let me back up. The</p> <p>11 birefringence calculation that you do, that's taking</p> <p>12 for any given particle the difference of the</p> <p>13 refractive index and parallel orientation and the</p> <p>14 perpendicular orientation to arrive at a</p> <p>15 birefringence number, correct?</p> <p>16 A. Correct. It's a very simple</p> <p>17 calculation. You take the gamma -- you take the</p> <p>18 alpha, or the perpendicular, and subtract it from the</p> <p>19 gamma, which is the parallel, and that number will --</p> <p>20 you can then be -- it's in the low range, the medium</p> <p>21 range or the high range.</p> <p>22 Q. And in order to get accurate</p> <p>23 birefringence computations, you need to have accurate</p> <p>24 refractive index computations, correct?</p> <p>25 A. Correct.</p>	<p>Page 52</p> <p>1 photographs of the gamma and alpha directions, he</p> <p>2 will have on the photograph what specifically is for</p> <p>3 that -- specifically is for that particular</p> <p>4 structure.</p> <p>5 Q. And is it fair to say that you're</p> <p>6 relying on Mr. Hess for the accuracy of the</p> <p>7 refractive index determinations?</p> <p>8 A. No. I'm relying on myself to make</p> <p>9 sure he is accurate. If he -- if I see something</p> <p>10 that doesn't make sense, I'll walk back to him and</p> <p>11 say, these -- this -- I'm not -- I'm not agreeing</p> <p>12 with this refractive indice. And I would say most</p> <p>13 every time he's -- you know, he's switched a number.</p> <p>14 So I'm relying on -- yeah, I'm relying on him to do</p> <p>15 the analysis, but the actual verification of what</p> <p>16 he's doing, I rely on myself.</p> <p>17 Q. Well, a moment ago we were talking</p> <p>18 about -- and I think this was -- with reference to</p> <p>19 item 2, where we said, you know, there were 37</p> <p>20 bundles identified, but only you said four or five</p> <p>21 might be actually photographed. Do you recall that</p> <p>22 discussion?</p> <p>23 A. Yes.</p> <p>24 Q. Now, apart from the four or five that</p> <p>25 are photographed, only Mr. Hess is going to see the</p>

<p>Page 105</p> <p>1 these particles in here and we can look at it with 2 that, if I can find it. So I just want to -- 3 A. Yeah. So there's the parallel and 4 1.564. But we're doing this in 1.560 refractive 5 indice fluid. So you're not -- instead of 1.550 -- 6 and the reason we're using 1.560 is because most of 7 the gamma refractive indices for the chrysotile being 8 found in the cosmetic talcs, as well as the SG-210 9 Calidria, are all in this, you know, 1.561 to 1.569 10 with an average about 1.566. 11 Q. Okay. And so -- 12 A. And we're basing that on what -- what 13 Dr. Su said -- Dr. Su published in his -- well, his 14 published paper in I think it was the third quarter 15 of 2022 in a journal called The Microscope. 16 Q. Okay. So in terms of this particle -- 17 so we have a refractive index of 1.564 in parallel -- 18 and just for the record this is M71614-001, page 32 19 of Exhibit 7. How does Mr. Hess actually calculate 20 1.564 as being the refractive index value for this 21 particle? Is he taking averages? 22 A. Well, you know, Mr. Hess would take 23 the -- what the wavelengths are showing and he would 24 go to Dr. Su's 1.560 table that he produced in -- 25 that he had in his published paper and take the</p>	<p>Page 107</p> <p>1 So when I -- if I were doing it and 2 I -- you know, and the range was, say, 1.561 to 3 1.562, I would go just pick one, it's not going to 4 change that much type thing. 5 Q. So I guess for some of these particles 6 it looks like, you know, there is a fair variety of 7 different colors around the outside. I'm kind of 8 seeing some blue over here, some yellow. 9 A. Well, it's the very edge. 1.564 is 10 what I would probably -- you know, if I'm looking at 11 that, what I would probably average around the edge 12 from the wavelengths. You're looking at the 13 wavelengths first, and it's usually the outer edge 14 that you want to look at. 15 Q. Right. And then so what would be 16 average, because, you know, I'm just not -- 17 A. Well, I mean, I -- I'd have to have a 18 closeup of that picture and look at it and see what I 19 would -- you know, and have the chart in front of me 20 so where I would look and see where that is. 21 Q. Okay. And I think you may have said 22 this earlier, but you're aware that others like 23 Dr. Su, the way they calculate birefringence values 24 is they take the largest or the highest parallel and 25 subtract it by the lowest perpendicular, correct?</p>
<p>Page 106</p> <p>1 wavelength at 21 degrees centigrade, because it's 2 already been corrected -- and then go over to where 3 it states what the refractive indice is. 4 Q. And so I know there was some testimony 5 early on about averages and how averages are used in 6 this process. Are you able to just kind of explain 7 that for me to the extent that averages are being 8 used? Because I'm just not entirely sure. I have -- 9 MR. KELLEY: Object to the form of the 10 question. 11 A. We -- if we have a -- say you have a 12 bundle, elongated structure that has different 13 thicknesses in it or -- you typically go around the 14 outer edge is the proper way, the very edge of the 15 particle in this case. And if it's -- say there's a 16 fairly significant change where you may have, you 17 know, 1.562 to 1.566. But I believe it makes it 18 easier for everybody -- and if you were to use that 19 range and then have two -- and then your alpha and 20 you use that range and calculate them both by 21 subtracting them out, then you get a certain 22 birefringence. 23 If you just average the two, put one 24 down and average the others and put one down and then 25 use that to subtract them out you get the same thing.</p>	<p>Page 108</p> <p>1 A. That's not true. They're not 2 subtracting anything like that. They're taking and 3 comparing the two. So when people say that's how he 4 does the birefringence, that's just not true. 5 Q. When you say "comparing the two," what 6 do you mean? 7 A. Well, he's looking at the highest 8 birefringence in the Michel-Levy charts and he's 9 looking at the -- if he has a range, looking at the 10 lowest alpha. And then he's going over and looking 11 at the chart, trying to match up those colors. And 12 you'll see a lot of -- when they do that they go low 13 to medium, you know, you've got this range, where 14 when you do the actual calculation you can say this 15 is low or this is the low end of moderate. I think 16 it's much more accurate. 17 Q. Okay. Let's just look at one more of 18 these real quick. Okay. So this one here -- and 19 just for the record, this is M71614-001CSM-004, 20 page 47 of Exhibit 7. And this one here you have a 21 refractive index of 1.565 to 1.568 in parallel? 22 A. Correct. 23 Q. And so for this, why is there a range 24 provided rather than a single -- a single value? 25 A. Because Mr. Hess thinks it's more</p>

<p>Page 109</p> <p>1 accurate to do that way because you've got this like 2 dispersion, change in color, if you look around the 3 edge. 4 If I take the average of that and go 5 to the high end, you know, it's just 1 point -- it 6 would be 1.566 to 1.567. It would be easier just to 7 average that and take the high side of it. You're 8 going to get basically the exact same thing, 9 refractive -- I mean on the birefringence, but...</p> <p>10 Q. Okay. Yeah, that was going to be my 11 next question. Like how does this impact, if at all, 12 the birefringence calculation?</p> <p>13 A. It actually doesn't when you -- if you 14 were to average the two. But what we do is you'll 15 take the high end of the gamma here and the high end 16 of the alpha, subtract it out, then average those 17 two. Or if you were to average this out and do the 18 exact same thing, you would get just about the exact 19 same number on the calculation.</p> <p>20 Q. All right. And so I think you said 21 earlier today that it's your view that EPA R-93 22 calculates birefringence in the same way that you are 23 calculating birefringence?</p> <p>24 A. No, I didn't say that. I said they 25 have examples of ranges that are in Table 2.2 --</p>	<p>Page 111</p> <p>1 in a table where they have referenced chrysotile and 2 they have given the range of what you find, the only 3 way to get that range is for you to actually have 4 calculated it. There we go. 5 Q. Right. This Table 2.2 at page -- or 6 PDF page 26 is what you're referencing? 7 A. Yes. 8 Q. And so -- sorry, just take me back 9 through -- because I think your opinion is that 10 what's in this table is consistent, at least the 11 birefringence values are consistent with your 12 calculations in the talc litigation. Can you just 13 kind of walk me through why that's the case? 14 A. Well, we're finding anywhere from 15 0.004 to 5 up to 0.017. If you average them all out, 16 the average birefringence that was calculated from 17 that -- what they have there at 0.011, I think, and 18 what we typically see is an average of 0.010 to 19 0.012, et cetera. So they're doing the -- to get 20 those numbers in that range, they have to do the 21 calculation. 22 And then if you go to Table 2.5, I 23 think it is -- so we see a range of birefringence for 24 chrysotile, 0.004 to 0.017. And if we go to fibrous 25 talc, which is on 2.5 of the -- right there -- 2.5 at</p>
<p>Page 110</p> <p>1 Q. Okay. 2 A. -- where there is a -- they reference 3 chrysotile. They have -- in that table they have 4 calculated the ranges of the birefringence that go 5 with that chrysotile. And if you sit down and do 6 that, you can get -- and take those averages from 7 that, it's -- the problem I have with some of the 8 criticism on this is saying that, you know, this is 9 not done. That's not true. I mean, Deer, Howie and 10 Zussman is considered a very authoritative reference 11 on the crystal structures, and every one of them in 12 there that has double defraction, he lays out the 13 range and then he calculates the overall 14 birefringence. And if you go and do exactly what I 15 do, you'll get the exact same numbers that he has. 16 So I just think it's -- it is -- it is 17 more precise than doing the estimated birefringence.</p> <p>18 Q. All right. Well, let's just pull up 19 the EPA R-93 method, which I'll mark as Exhibit 8. 20 (DEPOSITION EXHIBIT NO. 8 MARKED) 21 Q. Okay. And this is the method you were 22 referencing earlier in your testimony, Dr. Longo?</p> <p>23 A. I'm not saying that when they're 24 teaching for bulk building materials that they're 25 using the subtraction method. What I am saying there</p>	<p>Page 112</p> <p>1 the bottom, you can see -- if you go to the top, you 2 can see the birefringence is N parallel minus N 3 alpha, or perpendicular. And there they show optical 4 properties of selected fibers doing exactly what we 5 do. 6 And if you go down to fibrous talc, 7 the birefringence on that is 0.06, which is almost a 8 factor of five to six times higher than chrysotile. 9 And if you also go to Deer, Howie and 10 Zussman and look at their range of talc where you 11 have the double defractions, the talc plates on edge 12 are fibrous -- they're finding pretty much the same 13 thing. 14 If you go to Johns Manville research 15 documentation from 1973 when they were doing the -- 16 trying out the FDA method for PLM where you spend a 17 half a day and you count all the fibers, they find 18 pretty much the same thing. 19 So it's not hard to tell the 20 difference between fibrous talc and chrysotile. 21 Q. Well, and so just to be clear here, 22 where they're talking about fibrous talc, the colors 23 that they're seeing in parallel, pale yellow and 24 perpendicular pale blue, those are consistent with 25 the colors you're reporting as chrysotile in this</p>

<p style="text-align: right;">Page 121</p> <p>1 admits that the thickness causes an effect or he'll</p> <p>2 say that the thickness doesn't cause any effect.</p> <p>3 I disagree, because the chrysotile</p> <p>4 from Union Carbide out of the Coalinga mine that is</p> <p>5 in the average size of 10 microns and up, it is</p> <p>6 chrysotile, and it is certainly providing a yellowish</p> <p>7 gold and 1.550, which if it has to be magenta, why is</p> <p>8 that yellowish gold?</p> <p>9 Q. Right. Well, I guess that's kind of</p> <p>10 what I'm getting to, right? If this is discussing</p> <p>11 the kind of NIST or the 1866-B standard that you're</p> <p>12 saying is not applicable to cosmetic talc because</p> <p>13 what you're seeing, you're saying, is smaller, you</p> <p>14 know, why do you think it's appropriate then to rely</p> <p>15 upon this table with these birefringence values</p> <p>16 that's looking at a different type of chrysotile?</p> <p>17 A. It's -- because they're calculating</p> <p>18 it, it doesn't matter what these numbers are. I was</p> <p>19 using this to support my opinion that you can't take</p> <p>20 the highest gamma and subtract out the lowest alpha</p> <p>21 and get anything that resembles the actual</p> <p>22 birefringence range.</p> <p>23 And if you look through the gammas on</p> <p>24 the last two, if you're not seeing any of those --</p> <p>25 you know, the 1.567 and the 1.561, you don't see that</p>	<p style="text-align: right;">Page 123</p> <p>1 things we were just talking about.</p> <p>2 I think you said that PLM analysis</p> <p>3 is -- whether it's subjective depends on the analyst</p> <p>4 who's performing the analysis, or something along</p> <p>5 those lines, is that correct?</p> <p>6 A. That's correct.</p> <p>7 Q. And so just to make sure I'm clear --</p> <p>8 A. And how much experience they have on</p> <p>9 doing this, you know, repetitive, et cetera. And so</p> <p>10 just doing asbestos-added products, you know, it's</p> <p>11 pretty straightforward.</p> <p>12 Q. But you wouldn't disagree that there's</p> <p>13 certainly a subjective element to PLM analysis.</p> <p>14 A. You know, just depends on your</p> <p>15 training and how much experience you've got. You</p> <p>16 know, this -- and it's typically .00 -- 0.0005 is the</p> <p>17 error rate. So it's like anything else, these types</p> <p>18 of analysis. But I don't think it's that subjective</p> <p>19 if you are well experienced and you look at standards</p> <p>20 and you validate the method.</p> <p>21 Q. And this subjective part would be</p> <p>22 somebody looks under a microscope, looks at a sample</p> <p>23 under a PLM microscope, and they try to match up the</p> <p>24 color they're seeing to the color on a central</p> <p>25 dispersion staining chart, correct?</p>
<p style="text-align: right;">Page 122</p> <p>1 high a gamma in the chrysotile-added products.</p> <p>2 So it's not so much relying on -- it's</p> <p>3 this is how -- they show you that when you're</p> <p>4 subtracting it out this is how it's done. You don't</p> <p>5 take a high and a low.</p> <p>6 And it's also the same thing that --</p> <p>7 in the Deer, Howie, Zussman, how -- the same way</p> <p>8 they're calculating ranges.</p> <p>9 MR. VIVES: All right. Well, we've</p> <p>10 been going for a while. Why don't we take a break.</p> <p>11 THE WITNESS: Sure, yeah. What time</p> <p>12 it is?</p> <p>13 MR. VIVES: 3:08.</p> <p>14 THE WITNESS: 3:00, wow. I won't hold</p> <p>15 you to this. Are we off the record?</p> <p>16 MR. SMITH: Not yet. We can go off</p> <p>17 the record.</p> <p>18 THE MODERATOR: Off the record at</p> <p>19 3:09 p.m.</p> <p>20 (OFF THE RECORD)</p> <p>21 THE MODERATOR: We are on the record</p> <p>22 at 3:25 p.m.</p> <p>23 BY MR. VIVES:</p> <p>24 Q. Okay, Dr. Longo, we're back after a</p> <p>25 quick break. I just want to come back to a few</p>	<p style="text-align: right;">Page 124</p> <p>1 A. Well, I don't know about somebody. I</p> <p>2 would say our guys are -- have been doing it for so</p> <p>3 long we're pretty consistent. So I'm sure there is</p> <p>4 some subjectivity out there trying to look at it and</p> <p>5 some -- so I can't really say how subjective it is</p> <p>6 for other folks.</p> <p>7 Q. Right. But you're confident that your</p> <p>8 analysts are able to -- you know, when we're talking</p> <p>9 these shades of colors, they're able to kind of match</p> <p>10 it up accurately each time.</p> <p>11 A. They are fairly consistent. I don't</p> <p>12 see a lot of spread in what we can take a look at.</p> <p>13 You know, the gamma is in the 1.561 up to 1.569,</p> <p>14 sometimes 1.71, but it's always in that range.</p> <p>15 Q. That's after the subjective part of</p> <p>16 the process has happened, right? That's after you've</p> <p>17 assigned a wavelength value and generated your</p> <p>18 refractive index value, right?</p> <p>19 A. I'm having trouble hearing you.</p> <p>20 Q. I'm sorry.</p> <p>21 A. There you go. It's not that</p> <p>22 subjective because, you know, it is in line with what</p> <p>23 we're seeing for chrysotile from the Coalinga mine</p> <p>24 that's that size, okay?</p> <p>25 Q. Before you landed on chrysotile from</p>

<p>1 could -- could produce all the PLM slides he did in 2 litigation since 2016 or whenever he started.</p> <p>3 Q. Well, so it sounds like with respect 4 to -- it sounds like you're aware that there was a 5 request made for your PLM slides in the Valadez case?</p> <p>6 A. Yes, I'm aware of it. I went to go 7 look for them after I got around to it, and what I 8 didn't do is tell anybody here to make sure to keep 9 them --</p> <p>10 Q. All right.</p> <p>11 A. -- because I get sidetracked pretty 12 easily at times.</p> <p>13 Q. And do you recall when you went around 14 to look for them?</p> <p>15 A. I think it was about two weeks 16 afterwards, something like that.</p> <p>17 Q. And when you went to look for them 18 they were -- they had been destroyed?</p> <p>19 A. They weren't there.</p> <p>20 Q. Okay. So they weren't -- it wasn't 21 that they were degraded. It's that they had been 22 destroyed.</p> <p>23 A. They don't last. I mean, you can't go 24 back a week or two weeks afterwards and look -- be 25 able to find the same structures because it starts</p>	<p>1 oil starts to evaporate, so it's usually, you know, 2 one to two weeks. Sometimes, you know, if I've 3 looked at the report and stuff or it's out, there's 4 no need to keep it. You know, to go back and find 5 that exact one bundle, sometimes it would be tough. 6 I don't think anybody keeps them.</p> <p>7 Q. Right. And is it your view that -- so 8 after one to two weeks if the oil evaporates the 9 slides are unusable?</p> <p>10 A. I don't know if they're absolutely 11 unusable, but to go back to the same structures, it 12 may not be possible. So it's just -- nobody keeps 13 them.</p> <p>14 Q. Have you ever tried to analyze or 15 relook at a PLM slide two weeks after it was prepared 16 to see whether you can see anything?</p> <p>17 A. No. I'm not going to take the time to 18 go and start doing an experiment because somebody -- 19 they wanted to come here and analyze a sample.</p> <p>20 I'd be perfectly happy to have, you 21 know, Dr. Sanchez -- well, his PLM person come here, 22 watch us make the sample. We can go and look for it 23 and say here's the structure, go ahead and look at 24 it. What is the difference? Probably better that 25 way.</p>
<p>1 crystallizing.</p> <p>2 Q. Right, but --</p> <p>3 A. This is not like TEM grids where you 4 have to go through a whole thing and you can pull 5 them out and -- which we've done. PLM -- you can't 6 ship a PLM slide, and you can always make it again.</p> <p>7 Q. Okay. But I just want to make sure 8 we're clear because I think first you testified that 9 when you went to look for them you couldn't find 10 them. Is that --</p> <p>11 A. If they're not there, it's hard to 12 find them.</p> <p>13 Q. Right. Okay.</p> <p>14 A. So they're not here. And they were -- 15 they were just -- they were thrown out.</p> <p>16 Q. Okay. And do you have any idea when 17 they were thrown out?</p> <p>18 A. I don't know within the date -- when 19 it was actually thrown out or not. It was thrown 20 out, but I don't know the date.</p> <p>21 Q. Okay. We may look at a few things on 22 this, but I think you just said -- well, I guess let 23 me just ask. What is your view on how long it takes 24 PLM slides to degrade?</p> <p>25 A. Well, they start crystallizing and the</p>	<p>1 Q. Okay. But not Dr. Sanchez? His PLM 2 person?</p> <p>3 A. He doesn't -- he never analyzes them. 4 You know, and he accused me of committing a felony, 5 so I have a problem with him coming in my lab, you 6 know, that I'm lying under oath all the time.</p> <p>7 He would come here, but he's going to 8 have somebody else do the PLM analysis. I think we 9 offered that as a compromise, but that's what, you 10 know -- I would just say Dr. Sanchez can go ahead and 11 write the report that we misidentified it. He can do 12 that. He doesn't have to come here and analyze it.</p> <p>13 Q. Are you aware of any peer-reviewed 14 literature that states that PLM --</p> <p>15 A. I can't hear you.</p> <p>16 Q. Sorry. I've got this new microphone 17 that's been causing all sorts of problems. Are you 18 -- I like yours a lot better.</p> <p>19 Are you aware of any peer-reviewed 20 literature that states that PLM slides degrade after 21 one to two weeks?</p> <p>22 A. You know, it's hard for me to chase 23 down every time somebody comes up with something that 24 they want to know or there's some literature. I 25 don't know.</p>

<p>Page 149</p> <p>1 A. The slides were gone. And by that</p> <p>2 time probably -- I don't know -- I just don't recall</p> <p>3 ever telling Mr. Satterley that.</p> <p>4 Q. Okay. Okay. That's fine. So all you</p> <p>5 recall telling him is that the slides were gone.</p> <p>6 A. They were not -- they were not kept.</p> <p>7 Q. And you don't recall when you would</p> <p>8 have told him that. Presumably, it was after that</p> <p>9 March 15th email we looked at?</p> <p>10 A. Yeah, they -- I did not -- they were</p> <p>11 not here.</p> <p>12 MR. VIVES: Okay. All right. Let me</p> <p>13 just take two minutes and just see if I have anything</p> <p>14 else. I think that may be it for me.</p> <p>15 THE WITNESS: Okay. Is anybody else</p> <p>16 going to ask questions?</p> <p>17 MR. SMITH: I'll be very brief.</p> <p>18 Should I go during the two minutes while you look at</p> <p>19 your notes, Michael?</p> <p>20 MR. VIVES: Sure. Go ahead.</p> <p>21 MR. SMITH: At least I think I'll be</p> <p>22 very brief.</p> <p>23</p> <p>24</p> <p>25</p>	<p>Page 151</p> <p>1 Powder or Gold Bond talcum powders that may have been</p> <p>2 purchased from Kroger as opposed to another store?</p> <p>3 A. That's correct, I have not.</p> <p>4 MR. SMITH: Okay. I think that's all</p> <p>5 I have. Thank you.</p> <p>6 THE WITNESS: Thank you.</p> <p>7 MR. VIVES: All right. No further</p> <p>8 questions for me either, Dr. Longo.</p> <p>9 THE WITNESS: Thank you, sir.</p> <p>10 MR. KELLEY: Any other questions?</p> <p>11 MS. BROWNING: None from me.</p> <p>12 MR. WILLIAMS: None for Chattem.</p> <p>13 MR. KELLEY: All right. I think we</p> <p>14 can close the record.</p> <p>15 THE MODERATOR: We are off the record</p> <p>16 at 4:03 p.m.</p> <p>17</p> <p>18 (DEPOSITION CONCLUDED AT 4:03 P.M.)</p> <p>19 * * *</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>
<p>Page 150</p> <p>1 EXAMINATION</p> <p>2</p> <p>3 BY MR. SMITH:</p> <p>4 Q. Dr. Longo, my name is Travis Smith.</p> <p>5 Can you hear me okay?</p> <p>6 A. Yes, sir, I can.</p> <p>7 Q. I represent Kroger. Have you reviewed</p> <p>8 any documents of Kroger as it relates to this case,</p> <p>9 this Streck case, or cosmetic talc products</p> <p>10 generally?</p> <p>11 A. No.</p> <p>12 Q. And I didn't see Kroger mentioned in</p> <p>13 your notes and calculations page that we marked as</p> <p>14 Exhibit 5. Have you formed any opinions in this case</p> <p>15 specifically as to Kroger?</p> <p>16 A. No, I don't have any opinions about</p> <p>17 Kroger, you know, who knew what when, should they</p> <p>18 have known, not known, hazard, dangers of asbestos.</p> <p>19 It's immaterial to me where the product was bought.</p> <p>20 My only opinion is about what's in the product. It</p> <p>21 could have came from Kroger or any other grocery</p> <p>22 store.</p> <p>23 Q. And you haven't done any</p> <p>24 quantification or calculated any cumulative dose for</p> <p>25 Mr. Streck with respect to either Johnson's Baby</p>	<p>Page 152</p> <p>1 STATE OF KENTUCKY)(</p> <p>2)(SS:</p> <p>3 COUNTY OF JEFFERSON)(</p> <p>4</p> <p>5 I, ELLEN L. COULTER, Notary Public,</p> <p>6 State of Kentucky at Large, hereby certify that the</p> <p>7 foregoing deposition was taken at the time and place</p> <p>8 stated in the caption; that the appearances were as</p> <p>9 set forth in the caption; that prior to giving</p> <p>10 testimony the witness was first duly sworn by me;</p> <p>11 that said testimony was taken down by me in</p> <p>12 stenographic notes and thereafter reduced under my</p> <p>13 supervision to the foregoing typewritten pages and</p> <p>14 that said typewritten transcript is a true, accurate</p> <p>15 and complete record of my stenographic notes so</p> <p>16 taken.</p> <p>17 I further certify that I am not</p> <p>18 related by blood or marriage to any of the parties</p> <p>19 hereto and that I have no interest in the outcome of</p> <p>20 captioned case.</p> <p>21 Given under my hand this the</p> <p>22 day of , , at</p> <p>23 Louisville, Kentucky.</p> <p>24 My commission as Notary Public expires</p> <p>25 November 5, 2023.</p> <p>26</p> <p>27</p> <p>28</p> <p>29</p> <p>30</p> <p>31</p> <p>32</p> <p>33</p> <p>34</p> <p>35</p> <p>36</p> <p>37</p> <p>38</p> <p>39</p> <p>40</p> <p>41</p> <p>42</p> <p>43</p> <p>44</p> <p>45</p> <p>46</p> <p>47</p> <p>48</p> <p>49</p> <p>50</p> <p>51</p> <p>52</p> <p>53</p> <p>54</p> <p>55</p> <p>56</p> <p>57</p> <p>58</p> <p>59</p> <p>60</p> <p>61</p> <p>62</p> <p>63</p> <p>64</p> <p>65</p> <p>66</p> <p>67</p> <p>68</p> <p>69</p> <p>70</p> <p>71</p> <p>72</p> <p>73</p> <p>74</p> <p>75</p> <p>76</p> <p>77</p> <p>78</p> <p>79</p> <p>80</p> <p>81</p> <p>82</p> <p>83</p> <p>84</p> <p>85</p> <p>86</p> <p>87</p> <p>88</p> <p>89</p> <p>90</p> <p>91</p> <p>92</p> <p>93</p> <p>94</p> <p>95</p> <p>96</p> <p>97</p> <p>98</p> <p>99</p> <p>100</p> <p>101</p> <p>102</p> <p>103</p> <p>104</p> <p>105</p> <p>106</p> <p>107</p> <p>108</p> <p>109</p> <p>110</p> <p>111</p> <p>112</p> <p>113</p> <p>114</p> <p>115</p> <p>116</p> <p>117</p> <p>118</p> <p>119</p> <p>120</p> <p>121</p> 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<p>1278</p> <p>1279</p> <p>1280</p> <p>1281</p> <p>1282</p> <p>1283</p> <p>1284</p> <p>1285</p> <p>1286</p> <p>1287</p> <p>1288</p> <p>1289</p> <p>1290</p> <p>1291</p> <p>1292</p> <p>1293</p> <p>1294</p> <p>1295</p> <p>1296</p> <p>1297</p> <p>1298</p> <p>1299</p> <p>1300</p> <p>1301</p> <p>1302</p> <p>1303</p> <p>1304</p> <p>1305</p> <p>1306</p> <p>1307</p> <p>1308</p> <p>1309</p> <p>1310</p> <p>1311</p> <p>1312</p> <p>1313</p> <p>1314</p> <p>1315</p> <p>1316</p> <p>1317</p> <